SEQUENCE LISTING

<110> Vaisvila, Romualdas
      Morgan, Richard D.
      Raleigh, Elisabeth

<120> Restriction Enzyme Gene Discovery Method

<130> NEB-165PUS

<140> 09/701,626
<141> 1999-06-11

<150> 60/089,086
<151> 1998-06-12

<150> 60/089,101
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<150> PCT/US99/13295
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<160> 130

<170> PatentIn Ver. 2.0

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6

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7

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8

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9

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10

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accagcagcg cctccgactt gcaggggcaa gcaggctggc ggcaccgaag gcagaaagaa 12900
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<210> 5
<211> 77

16

<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 5
atctaacaat tggttcaagt cgctcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaagc gttaggt   77

<210> 6
<211> 87
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 6
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gcagcgccgg ttagctctac gttaggc   87

<210> 7
<211> 88
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 7
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gcggccgccc cttagccaaa cgttaggt   88

<210> 8
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 8
acctaacaat gcgctcaact gccgctcact tcgttcgctg gactcgcaaa agctgcgctt 60

ttgctcgccc gttagcttaa tcgttaggt   89

<210> 9
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 9
acctaacaat gcgctcaact gccgctcact tcgttcgctg gacagtcaaa agctgcgctt 60
ttgcctgccc gttagcttaa tcgttaggc   89

<210> 10
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 10
gcctaacaat gcgctcaaag cgctcacttc gttcgctggg accggcgaag ccggcccctt 60
agcttaatcg ttaggt   76

<210> 11
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 11
acctaacaac tggttcaagt cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc   77

<210> 12
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of

Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 12
gcctaacaat tggctcaagt cgttcgcttc gctcactcgg gaccggcgaa gccggcccct 60
tagccaaacg ttaggt   76

<210> 13
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
     Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 13
acctaacaat gcgctcaact gccgctcact tcgttcgctg gacagtcaaa agctgcgctt 60
ttgcctgccc gttagcttaa tcgttaggc   89

<210> 14
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
     Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 14
gcctaacaag tggttcaaac cgttcgcttc gctcactggg acgggctaaa gcccgcccct 60
taaccaaacg ttaggc   76

<210> 15
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
     Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 15
ctctaacaat gcgctcaact atcgctcact tcgttcgctg gactcgcaaa agctgcgctt 60
ttgctcgccc gttagcttaa tcgttataa   89

<210> 16
<211> 77
<212> DNA

<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 16
ttataacaat gcgctcaaat cgttcgcttc gctcactggg acgggctaaa gcccgcccct 60
tagcttaatc gttaaat   77

<210> 17
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 17
atttaacaat gcgctcaact gtcgctcact tcgttcgctg gacagccaaa agctgcgctt 60
ttgtctgccc gttagcttaa tcgttaggg   89

<210> 18
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 18
ccctaacaaa tggttcaaag ccgttcgctt cgctcactcg ggaccggcta aagccggccc 60
cttaaccaaa cgttagag   78

<210> 19
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 19
ctctaacaaa tggttcaagt cgctcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc   77

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<210> 20
<211> 88
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 20
gcctaacaac tcactcaacc tcgttcgctc cgctcactgg actcgcaaaa gctacgcttt 60
tgctcgccgg ttagctcaaa cgttaggc                                    88

<210> 21
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 21
gcccaacaaa tggttcaagt cgctcgctcc gctcactcgg daccggctaa agccggcccc 60
ttaaccaaac gttaggg                                                77

<210> 22
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 22
ccctaactag tggttcaagc cgctcgcttc gctcactcgg daccggctaa agccggcccc 60
ttaaccaaac gttaggc                                                77

<210> 23
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)
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21

<400> 23
gcctaacaaa tggttcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggt 78

<210> 24
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 24
acctaacaat tggttcaagt cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc 77

<210> 25
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 25
gcctaacaac tggttcaagt cactcgcttc gctcgttcgg gaccggcata gccggcccct 60
taaccaaacg ttaggt 76

<210> 26
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 26
gcctaacaat gcgttcaagt cgttcgcttc actcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggt 77

<210> 27
<211> 90
<212> DNA
<213> Unknown

22

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 27
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cgcggtcgcc ccttaacctg tccgttaggc   90

<210> 28
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 28
gcctaacaat acgctcaact atcgctcact tcgttcgctg gacgtccaaa agctgcgctt 60
ttggccgccc gttagcttaa ccgttatgt   89

<210> 29
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 29
acataacaat gcgctcaact gccgctcact tcgttcgctg gacagccaaa agctacgctt 60
ttgcctgccc gttagcttaa tcgttaggc   89

<210> 30
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 30
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ttgtctgccc gttagcttaa tcgttaggc   89

23

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<210> 31
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 31
gcctaacaat gcgctcaact atcgctcact ccgttcgctg gacgtccaaa agctgcgctt 60
ttggccgccc gttagcttaa tcgttaggc                                    89


<210> 32
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 32
gcctaacaac tggttcaagc cactcgcttc gctcgctcgg gaccgcgtac cgcggcccct 60
taaccaaacg ttgggc                                                  76


<210> 33
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 33
gcccaacaaa cggttcaaga ccgctcgcct tgctcgctcg ggaccggcta aaaccggccc 60
cttaaccaaa cgttaggg                                                78


<210> 34
<211> 75
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)
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24

<400> 34
gcctaacaac tggttcaaat cgctcgctcc gctcgctggg accggcgaag ccggcccctt 60
aaccaaacgt taggc 75

<210> 35
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 35
gcctaacaat gcgctcaaag cgctcacttc gttcgctggg accggcgaag ccggccctt 60
agcttaatcg ttaggt 76

<210> 36
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 36
acctaacaat gcgctcaact gtcgctcact tcgttcgctg gacagtcaaa agctgcgctt 60
ttgcctgccc gttagcttaa tcgttagcg 89

<210> 37
<211> 64
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 37
cgctaacaat tcgctgcagg cgcgacggcc ctgacgggcc gcggcctgag ctcaaacgtt 60
ataa 64

<210> 38
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 38
ttataacaat tggttcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc   78

<210> 39
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 39
gcctaacaaa tggttcaagt cgctcgcttc gctcattcgg gaccggctaa cgccggcccc 60
ttagcttaat cgttaggc   78

<210> 40
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 40
gcctaacaat aggttcaagt cgctcgcttc gctcacttgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggt   77

<210> 41
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 41
acctaactag tggttcaagc cgctcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc   77

<210> 42

26

<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 42
atataacaat tggttcaaac cgttcgctgc gctcactggg acgggctaaa gcccgcccct 60
taaccaaacg ttatgc   76

<210> 43
<211> 87
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 43
gcataacaat tggctcaagc cgctcgctcc gctcactcgg acgtccgtaa gctacgcttc 60
cggccgcccc ttagccaaac gttaggg   87

<210> 44
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 44
ccctaacaaa tggttcaaag ccgttcgctt cgctcactcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc   78

<210> 45
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 45

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gcctaacaat gcgctcaact gccgctcact tcgttcgctg gacagtcaaa agctgcgctt 60
ttgcctgccc gttagcttaa tcgttagag                                   89
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<210> 46
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 46
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ctctaacaat gcgctcaaat cgctcactac gttcgctggg accggctaaa gccggcccct 60
tagcttaatc gttagag                                               77
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<210> 47
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 47
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ctctaacaat tggttcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggg                                              78
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<210> 48
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 48
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ccctaacaaa tggttcaagt cactcgcttc gctcgttcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagag                                               77
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<210> 49
<211> 78
<212> DNA
<213> Unknown

<220>
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<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 49
ctctaacaac tggttcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc                                                78


<210> 50
<211> 88
<212> DNA
<213> Unknown


<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 50
atctaacaat tggctcaagt cgttcgcttc gctcactcgg gacgtccaat agctgcgcta 60
ttggccgccc cttagccaaa cgttaggc                                    88


<210> 51
<211> 78
<212> DNA
<213> Unknown


<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 51
gcctaacaac tggttcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggg                                                78


<210> 52
<211> 79
<212> DNA
<213> Unknown


<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 52
ccctaacaaa tggttcaagt cgttccgctt cgctcactgc gggaccggct aatgccggcc 60
ccttaaccaa acgttaggc                                               79


<210> 53
<211> 89

<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 53
gcctaacact gcagtcaacc ggacaccaaa ctgtacgcag tttggttccc tccgctgcgc 60
tccggtgccg gttactttca acgttaggc                                   89

<210> 54
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 54
gcctaacaat gcgctcaaag cgctcacttc gttcgctggg accggcgaag ccggcccctt 60
agcttaatcg ttagaa                                                 76

<210> 55
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 55
ttctaactac tggttcaagt cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagcc                                                77

<210> 56
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 56
ggctaacaat gcgctcaact gtcgctcact tcgttcgctg gacagccaaa agctacgctt 60

ttgtctgccc gttagcttaa tcgttagga                                                89

<210> 57
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 57
gcctaacaac tggttcaagc cactcacttc gctcgctcgg gaccgcgttc cgcggcccct 60
taaccaaacg ttgggc                                                      76

<210> 58
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 58
gcccaacaat gcgctcaact gccgctcact tcgttcgctg gacgtccaaa agctacgctt 60
ttggccgccc gttagcttaa tcgttatgc                                        89

<210> 59
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 59
gcataacaat tgattcaagt cgttcgcttc gctcactgcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc                                                    78

<210> 60
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of

Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 60
gcctaactac tggttcaagt cactcgcttc gctcgttcgg gaccgcgttc cgcggcccct 60
taaccaaacg ttaggc                                                76

<210> 61
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 61
atctaacaat tggctcaagt cgttcgcttc gctcactcgg gaccggcgaa gccggcccct 60
tagccaaacg ttatgc                                                76

<210> 62
<211> 87
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 62
gcataacaat tggctcaagc cgctcgctcc gctcactcgg acgtccgtaa gctacgcttc 60
cggccgcccc ttagccaaac gttaggc                                     87

<210> 63
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 63
gcctaacaaa tggttcaagt cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc                                               77

<210> 64
<211> 72
<212> DNA

<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 64
gcctaactat tcagtcaagc ggacgcaaac cccgctgcgc ggtctttgcg ccgcttatct 60
caagcgttag at                                                     72

<210> 65
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 65
atctaacatg tggttcaagc cgctcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagag                                                77

<210> 66
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 66
ctctaacaat tggttcaagc cgctcgcttc gctcgctcgg gatcggcgaa gccggcacct 60
taaccaaacg ttagag                                                76

<210> 67
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 67
ctctaacaat tggttcagat cgttcgcttc gctcactgcg ggaccggctg aagccggccc 60
cttaaccaaa cgttaggc                                               78

<210> 68
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 68
gcctaactac tggttcaagt cgttcgcttc gctcactcgg daccggctaa agccggcccc 60
ttaaccaaac gttaggc                                                77

<210> 69
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 69
gtctaacaat gcgctcaaag cgctcacttc gttcgctggg atcggctaaa gccggcccct 60
tagcttaatc gttagca                                                77

<210> 70
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 70
tgctaacaat gcgcttaact gtcgctcact tcgttcgctg gatagtcaaa agctgcgctt 60
ttgtctgtcc gttagcttaa tcgttaggc                                   89

<210> 71
<211> 74
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

34

<400> 71

gcctaacaac tggttcaaat cgctcgctcc gctcgctggg accggcatag ccggcccctta 60

accaagcgtt agat 74


<210> 72
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 72

atctaacaat tggttaaaac cgttcgcttc gctcactggg accggctaaa gccggcccct 60

taaccaaacg ttaggt 76


<210> 73
<211> 76
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 73

gtttaacaac tggttcaagc cgctcgcttc gctcactcgg gaccggctaa attcggcccc 60

ttagcaaacg ttaact 76


<210> 74
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)


<400> 74

atctaacaat tggttcaagt cgctcgcttc gctcactcgg gaccggctaa agccggcccc 60

ttaaaccaag cgttatgc 78


<210> 75
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 75
gtataacaat tggttcaagt cactcgcttc gctcgctcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagat                                                77

<210> 76
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 76
gcataacaag tcgctcaaat cgctcacttc gtttcgctgg gacgggctaa agcccgcccc 60
ttagcttatc gttaggc                                                77

<210> 77
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 77
gcctaacaaa tggttcaagc cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagac                                                77

<210> 78
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA of
      Pseudomonas Alcaligenes NEB #585 (ATCC 55044)

<400> 78
ctctaacaaa tggttcaagc cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttagag                                                77

36

<210> 79
<211> 52
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 79
tcgcttcgct cactgcggga ccggctaaag ccggcccctt aaccaaacgt ta          52

<210> 80
<211> 43
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 80
taacaattgg ttcaagtcgt tcgcttcgct cactgcggga ccg                    43

<210> 81
<211> 43
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 81
taactattca gtcaagcgga cgcaaacccc gctgcgcggt ctt                    43

<210> 82
<211> 43
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

```
<400> 82
taacaatgcg ctcaactgcg ctcacttcgt tcgctggaca gcc                          43


<210> 83
<211> 43
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 83
taacaagtcg ctcaactgcc gctcactcgt tcgctggaca gcc                          43


<210> 84
<211> 19
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 84
gccccttaac caaacgtta                                                     19


<210> 85
<211> 20
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 85
ccgagtgagc gaagcgagcg                                                    20


<210> 86
<211> 33
<212> DNA
<213> Unknown
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<220>
<223> Description of Unknown Organism: Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 86
aaactcgagg gtcccgagtg agcgaagcga gcg   33

<210> 87
<211> 33
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 87
aaactcgagg gtcccgagcg agcgaagcga gcg   33

<210> 88
<211> 33
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 88
aaactcgagg ctgtccagcg agcgaagcga gcg   33

<210> 89
<211> 33
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 89
aaactcgaga ccgcgcagcg gggtttgcgt ccg   33

<210> 90

39

```
<211> 31
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 90
tgctctagac ggccccttaa ccaaacgtta g                              31

<210> 91
<211> 35
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Synthetic
      Oligonucleotide based on Pseudomonas Alcaligenes
      NEB#585 (ATCC 55044)

<400> 91
tgctctagac ggccgcccgt tagcttaatc gttag                          35

<210> 92
<211> 60
<212> DNA
<213> Unknown

<220>
<223> Position 2 & 60 - Y = C or T; Position 51 & 59 -
      R = A or G

<220>
<223> Description of Unknown Organism:  Consensus
      sequence

<400> 92
gyctaacaat tcgttcaagc cgacgccgct tcgcggcgcg gcttaactca rgcgttagry 60

<210> 93
<211> 7
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Consensus
```

sequence

<220>
<223> Position 4, 5 & 6 - R = A or G; Position 7 - Y = C
or T

<400> 93
gttrrry   7

<210> 94
<211> 7
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
sequence

<220>
<223> Position 1 - R = A or G; Position 2, 3 & 4 - Y = C
or T

<400> 94
ryyyaac   7

<210> 95
<211> 6
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
sequence

<220>
<223> Position 5 - R = A or G; Position 6 - Y = C or T

<400> 95
ttagry   6

<210> 96
<211> 24
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
Sequence

```
<400> 96
taacataccc ctgcgttaaa cgtt                                    24


<210> 97
<211> 40
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Consensus
      Sequence

<400> 97
taacagtcaa cgtcctcgtc ctgcgccctt acaacgttag                   40


<210> 98
<211> 74
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Consensus
      Sequence

<400> 98
ctaacaattg gttcaagtcg ctcgcttcgc tcgctcggga ccggctaaag ccggcccctt 60
aaccaaacgt tagg                                               74


<210> 99
<211> 19
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 99
gccagatggc ggccgttta                                          19


<210> 100
<211> 5
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:  Genomic DNA Of
```

Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 100
tctac   5

<210> 101
<211> 33
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 101
gccctatgac agaaaacgct tttttgccgg ttt   33

<210> 102
<211> 10
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 102
ccaacgtccg   10

<210> 103
<211> 4
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 103
atag   4

<210> 104
<211> 9
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of

Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 104
tcatcgtcc   9

<210> 105
<211> 21
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 105
cccacgactt aacgcttgcc g   21

<210> 106
<211> 3
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 106
ata   3

<210> 107
<211> 28
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 107
tcagggaaaa ccgcgttttg ccgttcga   28

<210> 108
<211> 5
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of

Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 108
ctgaa   5

<210> 109
<211> 6
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 109
gatagg   6

<210> 110
<211> 4
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 110
tcta   4

<210> 111
<211> 5
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
      Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 111
actaa   5

<210> 112
<211> 18
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of

Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 112
gccagatgtc ggccgttt   18

<210> 113
<211> 36
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 113
gcctctatga tagtaaaagc gcttttttgt cggttt   36

<210> 114
<211> 6
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 114
cactga   6

<210> 115
<211> 5
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of
     Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 115
aacta   5

<210> 116
<211> 8
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Genomic DNA Of

Pseudomonas Alcaligenes NEB#585 (ATCC 55044)

<400> 116
ccattgga   8

<210> 117
<211> 30
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 117
taactactct cctcgagccg ccctccgtta   30

<210> 118
<211> 64
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 118
ctaacatggt tcaagcttcg ctcactggga ccggctaaag ccggcccctt aaccaaacgt 60
tagg   64

<210> 119
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 119
gcctaacaat tggttcaagc cgttcgcttc gctcactcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggc   77

<210> 120
<211> 32
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 120
aacgtcaacc tccgtctggc cggccttacg tt   32

<210> 121
<211> 50
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 121
aacaggttca acctcctcgc tctgggaccg ccggccctta ccaaacgttg   50

<210> 122
<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 122
gcctaacaac tggttcaagt cgctcgcttc gctcgctcgg gaccggctaa agccggcccc 60
ttaaccaaac gttaggg   77

<210> 123
<211> 45
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 123
aacacgctaa ccgctcctcg tcgctggagc gcgttagcta cgtta   45

<210> 124
<211> 75
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 124
ctaacaatgc gctcaactcg ctcacttcgt tcgctggacc aaaagctcgc ttttggcccg 60
ttagcttaat cgtta   75

<210> 125
<211> 89
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 125
acctaacaat gcgctcaact gtcgctcact tcgttcgctg gacagccaaa agctgcgctt 60
ttgcctgccc gttagcttaa tcgttaggc   89

<210> 126
<211> 49
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 126
taacacgctc aacgtcctcg tcctggggca agccgccctt agctcgtta   49

<210> 127
<211> 64
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 127
taacaagcgc tcaaacgctc cttcgtcgct gggacggcaa gccgcccctt agcttaatcg 60
ttag   64

<210> 128

<211> 77
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 128
gcctaacaat gcgctcaaag cgctcacttc gttcgctggg accggctaaa gccggcccct 60
tagcttaatc gttaggt   77

<210> 129
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 129
gcctaacaat tggttcaagg tcgctcgctt cgctcactcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc   78

<210> 130
<211> 78
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism: Consensus
      Sequence

<400> 130
gcctaacaat tggttcaagg tcgctcgctt cgctcactcg ggaccggcta aagccggccc 60
cttaaccaaa cgttaggc   78